

CLAIMS

What is claimed is:

1. A system comprising:

a network including a plurality of components; and

a controller coupled to the network and operative to automatically

configure the components of the network to perform a combined

action.

2. The system of claim 1 wherein the controller defines relationships

between the components to configure them to perform a combined action.

3. The system of claim 1 wherein each resource is one of hardware

and software.

4. The system of claim 1 wherein the action includes providing a

network service.

5. The system of claim 1 wherein the controller automatically

configures the network in response to detecting an event.

6. The system of claim 5 wherein the event is generated in response to

automatically detecting increased network usage.

7. The system of claim 6 wherein the network includes a plurality of

resources, the controller assigning additional resources to provide a network

1 20. The method as in claim 18 wherein initializing comprises restarting
2 one or more of said system components.

1 21. The method as in claim 18 wherein initializing comprises
2 reconfiguring one or more of said system components.

1 22. A meta-server comprising:
2 a plurality of front end Web servers to process client requests for Web
3 pages;
4 a plurality of back-end servers to perform various back-end processing
5 functions associated with said client requests;
6 a controller to define one or more logical hierarchical relationships
7 between each of said components including one or more associations,
8 dependencies and/or prerequisites, said hierarchical relationships providing
9 information related to network operations at said data center and to use said
10 information for one or more network management functions at said data center.

1 23. The meta-server as in claim 22 further comprising:
2 a firewall communicatively coupled between said front-end Web servers
3 and said back-end servers to analyze and filter data traffic directed towards said
4 back end servers,
5 said controller further defining one or more additional logical hierarchical
6 relationships between said firewall and said front-end and/or said back-end
7 servers.

1 24. The meta-server as in claim 23 further comprising:

2 a router communicatively coupled between said front-end Web servers,
3 said back-end servers and an external network, said router to process data traffic
4 according to a network addressing protocol,

5 said controller further defining one or more additional logical hierarchical
6 relationships between said router, said front-end servers, said back-end servers
7 and/or said firewall.

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1 25. The meta-server as in claim 22 wherein said front-end servers and
2 said back-end servers are physically configured within a single unitized
3 platform.

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1 26. The meta-server as in claim 25 wherein said front-end servers and
2 said back-end servers communicate over a dynamically configurable backplane
3 bus.

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1 27. The meta-server as in claim 22 wherein said defined hierarchical
2 relationships comprise a first zone including said front-end Web servers, a
3 second zone including said back-end servers, and an interconnect logically
4 coupling said first zone with said second zone.

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1 28. The meta-server as in claim 24 wherein said defined hierarchical
2 relationships comprise a first zone including said front-end Web servers, a
3 second zone including said back-end servers, an interconnect logically coupling
4 said first zone with said second zone, and an interconnect resource comprised of
5 said firewall.

6 executing a simulation of said network operations based on said
7 hierarchical relationships between said components.

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1 41. The method as in claim 40 further comprising:
2 storing different groups of said logical hierarchical relationships into one
3 or more tool sets, said tool sets usable for conducting said simulation.

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1 42. The method as in claim 41 further comprising:
2 using results of said simulation to design additional logical hierarchical
3 relationships between said components.

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1 43. The method as in claim 42 wherein designing additional logical
2 hierarchical relationships comprises optimizing said logical hierarchical
3 relationships between said components.

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1 44. The method as in claim 42 wherein said additional logical hierarchical
2 relationships are designed responsive to an inclusion of new components on said
3 network.

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1 45. A network management architecture defined by a series of
2 abstractions comprising:
3 a plurality of network resources;
4 one or more services, each comprised of a specified set of said network
5 resources;
6 a service collection comprised of two ore more services; and
7 a user interface providing information related to and control over said
8 service collection, said services, and/or said network resources to a user.

